DE MAGIA MATHEMATICA

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Giordano Bruno

Introduction

Giordano Bruno was a Renaissance philosopher, astronomer, and magician who was burned at the stake by the Catholic Church in 1600. Among his many works on memory, cosmology, and the occult is this rarely read treatise, *De Magia Mathematica*. In it, Bruno compiles and organizes the magical knowledge of his time — drawing heavily from Trithemius, Agrippa, and Albertus Magnus — while weaving in his own vision of a living, interconnected universe governed by divine, celestial, and natural forces.

This work stands as one of the clearest surviving examples of Renaissance magical theory: a practical system that treats magic as both art and science. We present it here as the work of a true Renaissance Technomancer — a mind that sought to decode and command the hidden operating system of reality itself.

I. God flows into the angels, the angels into the celestial bodies, the celestial bodies into the elements, the elements into mixed things, mixed things into the senses, the senses into the soul, the soul into the animal. The animal ascends through the soul to the senses, through the senses to mixed things, through mixed things to the elements, through the elements to the heavens, through them to the demons or angels, through them to God or divine operations.

II. Thus there is a descent of God or from God through the world to the animal, and an ascent of the animal through the world to God. God is at the top of the ladder, the Cabalistic Jacob at its root and foundation. The degrees of the intermediate creatures according to their numbers constitute the height of the ladder, through which the superior operative powers descend to lower things and the lower ascend to the higher. For the ancients, profound authors of philosophy, designated the ascent and descent through the exit and entrance of the two gates of Cancer and Capricorn (one of which is called the gate of the Gods, the other of men).

III. The three-headed wisdom, from whose triple head Cerberus emits a triple bark, appointed to guard the three-headed Hecate, repels the dark ones affected by the blindness of ignorance, and admits only into the Elysian fields those who, descending from the top of the ladder through metaphysics, through the degrees of the mathematicians, to the physical foundation…

IV. The physical foundation consists of the two active elements, earth and fire, placed on opposite sides to form the degrees of the ladder of nature for the constitution of natural things and to establish them through their combination. Their virtues, powers, operations and acts have been explained to us elsewhere through the physical elements.

V. Therefore, in the present work, for the completion of the first part, which rests upon supernatural power, there are proposed contemplation, faith, worship, rites and purity toward pure things. For the completion of the second part: time and times, order, the attainment of concord to concord, of strife to strife, the evasion of obstacles, and timely execution. For the completion of the third part: the application of active things to passive, of skillfully prepared things to skillfully prepared things. We shall explain the reason of all these things in the following discussion through three treatises. The first is concerning worship or toward worship; the second is concerning observance and the dispensation of times, and likewise of figures, numbers, sigils, characters and rings; the third is concerning the quality, reason, application, property and order of things.

VI. Therefore, with this threefold nerve of the faculty existing, which when complete and perfect is most powerful for confirming all bindings and most efficacious for every solution, for which the wisest Cabalist among the Hebrews is understood to have said “a threefold cord is difficult to break.” We call the first cord invocation and the directing of the soul toward the supernal virtues. For we who are powerless in ourselves, like craftsmen, can never accomplish anything unless we borrow matter from natural things and obtain efficacy and power from supernatural things. Therefore the first foundation of universal union, by which we are either joined to the supernal virtues or join them to ourselves, is faith and belief. This must not only be vigorous in us who are working, but also in those who receive. And such a condition is so necessary that without it nothing can ever be effected by any virtue, unless it is efficacious through violence or through an obstructed nature.

VII. A sign of this is that souls rule over bodies, and they are the windows through which many accidents enter into animals. For it is evident that when souls are changed, bodies are altered in the effect of anger, indignation, envy, melancholy and similar passions. Hence the same Cabalist says “a sad spirit dries up the bones,” etc. The same judgment holds for other bodily affections from the soul, which if it… exists, places an obstacle and closes the door so that neither beneficial nor harmful impressions may creep in, either into itself or into its body. A sign is also found in the most efficacious Son of God, of whom it is said that “because of their unbelief” he could work no miracles in his own country, and we very often see that according to their faith he restored some to health by working upon them. For it is not credible nor is it proposed to be believed that he restored all to health except the believers.

VIII. Therefore faith and belief must be vigorous in the operator together with the hope of attaining the thing and accomplishing the work, and he must take care to arouse the same in him upon whom he decides to confer benefits. Fear, or… or terror, or by art he should procure it in him upon whom he has decided to hurl evils and adversities. For such affections, by affecting the soul, expose it as prepared matter for the form which he greatly desires to introduce.

On the threefold faith. IX. It is threefold: toward the supernal, from which the influx and favor is to be hoped for, and in whose name and authority all things are done; toward the middle, that is, toward the ministerial powers, which, if rightly inspected and treated, obey the supernal virtues in all things; toward the infernal, that is, toward workable things, concerning which one should not despair.

X. The manner and form of dealing with all powers is not difficult, but it can be seen among many investigators of this art, as in Albert who established general and brief canons on this matter. But what we say is difficult is to have knowledge of the names to be invoked for different affairs and different effects. These names were revealed to that man of great industry and most fortunate in this art, the abbot Trithemius, and we have reduced into this compendium those things which he proposed scattered in his Steganographia.

XI. According to the four cardinal points of the world, he knew four princes. In the North rules Armadiel. In the South dwells the great prince Caspiel. In the East is Carnaziel. In the West is Anchiadiel.

Besides these princes and dukes who are visibly assigned to certain places of the world, there are certain unstable ones, which the Magi say fly like flies in the air, without order, habitation, or restriction, and therefore can be invoked anywhere. The first of these is Garadiel. The second after Garadiel is Buriel. The third prince is called Hydriel. The fourth prince is called Syrrhichiel. The fifth prince is Evomiel or Evoviel. The sixth prince is Icosiel.

XII. Concerning the soul of the world and of worldly things according to the magic of the ancients. That the heaven and the world are animated, and moreover that the celestial bodies which are seen are also animated, has been granted by the most noble poets and wisest philosophers. And that a single universal spirit is implanted in the entire machine, a single mind poured through its limbs stirs the whole mass, as Pythagoras says.

If these lower mixed and partial things have soul and life, why should we deny that the universe itself, from which these things are produced as from a womb, has a nobler and more principal body than a plant or a tree? Why should we deny that the earth and water live, which from themselves generate, vivify, nourish and increase innumerable plants and living things? How does life come from non-living things? How does the non-living produce a living soul?

And Theophrastus says that one should not consider a man a philosopher who doubts that the celestial bodies live and are animated — animated, I say, with a rational soul, so that they may conspire among themselves in perpetual order and produce their works with fixed reasons. Therefore let there be reason of earthly things in the earth, of lunar things in the moon, of solar things in the sun. And this soul is not like the soul of an abject body, but intelligent, and with its body makes one of the gods, which has much better reasons for its actions than we have for those of our bodies. And it is fitting that a more perfect body be informed by a more perfect soul.

Hence that most perfect, most regular, most ordered motion, not wandering or straying, holding the most chosen path to the best end, where the perfect mind does not change its counsel and with other bodies forms as it were a single monochord and sings the universal harmony through Apollo’s lyre.

XIII. The names of the souls of the signs. The twelve signs in order have these names of souls, as is clear in Manilius. In the heart of Aries is the particular Pallas, and so on.

There are also other names of these assigned by the Magi and Cabalists. The first presiding over the planets is called Zapkiel. According to others, Oriphiel presides over Saturn, Zachariel over Jupiter, Zamael over Mars, Michael over the Sun, Anael over Venus, and so on. Their vicissitudes were noted by the abbot Trithemius in his treatise, and by considering the time of their dominion over the planets and spirits, one can have some certainty about the conditions of future times.

The presiding names of the twelve signs in order are: Malchidael, and so on.

The presiding names of the twenty-eight lunar mansions in order are: Geniel, Enediel, and so on.

The names of the four presiding over the four winds and the four parts of the world are: Michael over the eastern wind, and so on.

The names of the presiding good ones over the four elements are assigned to air as Cherub, and so on.

The names of the presiding evil princes. The most powerful princes of the evil spirits in the four parts of the world are: Uricus king of the East, and so on.

XIV. The names of the six evil princes. The ancient Greek theologians name Acteus, Megalesius, Ormenus, Lycus, Nicon, and Mimon.

The names of the angels of the days, and first of the day of the Sun. The first angels of the day of the Sun are three: Michael, Dardiel, Huratapel.

The names of the angels of the day of the Moon. The first three angels are Gabriel, Michael, Samael.

The names of the angels of the day of Mars. The first three are Samael, Sataël, Amabiel.

The names of the angels for the day of Mercury. The first three are Raphael, Meil, Seraphiel.

The names of the angels of the day of Jupiter. The first three are Sachiel, Cassiel, Asasiel.

The names of the angels of the day of Venus. The first three are Anael, Rachiel, Sachiel.

The names of the angels of the day of Saturn. The first three are Cassiel, Machatan, Uriel.

The names of the evil angelic princes of the days. The evil angelic prince of the day of the Sun is Machen. Of the day of the Moon is Shamain, and so on.

XV. The divine names. There are divine names of the greatest power, which in this work it is necessary not to be ignorant of. Some of these pertain to the three hierarchies, each of which is distributed into three orders, which are called Curetes. The first of these names is Eheie. The second name is Iod. To the first name corresponds the sephirah Kether. To the second name corresponds the sephirah Hochma, that is, wisdom. The first flows into the Seraphim, whom the Hebrews call Haiod Hecatosch, and so on.

XVI. On characters and sigils. To the names of the angels they are accustomed to add characters and sigils, which are certain letters and unknown writings, sacred to the gods, which they call hieroglyphic. This kind of characters depended upon the will and authority of the one instituting them, who had received the power of consecrating such things.

XVII. On the manner of attracting both good and evil angels. Good demons are attracted in various ways, yet with no bonds, but with sacred adjurations, as in Apuleius, by the celestial stars, and so on.

XVIII. On bonds. The bonds by which spirits are bound and adjured or banished are threefold.

XIX. On the disposition of those wishing to receive oracles. Whoever sets out to seek oracles should first purify himself with a long fast, continence, and abstinence from all sensual pleasures. He should withdraw to a secret and quiet place, far from all noise and disturbance of people. He should choose a time when the sky is clear and calm, when the moon is increasing or full, and when the planetary hours are favorable to his work. He should prepare a clean and consecrated space, perfumed with appropriate suffumigations, and should wear pure white garments. Only then should he begin to invoke with a calm and focused mind, free from all doubt and fear.

XX. To these must be added the virtues of abstinence, chastity, and similar things, which greatly strengthen the operation. For purity of body and mind is most necessary in all divine and magical works.

XXI. On the differences of cults and prayers. In sacrifices, those who wished to purify themselves, as has been said, so that according to necessity they might offer themselves pure, and so on.

XXII. On consecrations. There are also certain consecrations which draw their efficacy from two principles: the virtue of the person consecrating, and the power of the words and things used in the consecration. For consecration is nothing other than the application of a thing to a sacred use through certain sacred words and rites, whereby the thing is dedicated and withdrawn from common use. Thus altars, temples, circles, instruments, vestments, rings, and all things pertaining to sacred operations must be duly consecrated, so that they may be made fit vessels for the reception of higher influences.

XXIII. Certain things concerning time. In certain operations that are not common, the consideration of time must not be neglected. For there is a religion of times, and each thing has its own proper and appointed season in which it is most powerful and effective. Therefore the prudent operator must diligently observe the hours, days, and planetary aspects, as well as the phases of the Moon and the positions of the stars, so that he may perform his work under favorable celestial influences.

XXIV. On the remaining religious observances. In all things one must have regard for God, and approach divine works with a pure and devout mind. To these things also contribute the adaptation of place, the choice of time, purity of body and soul, and the right disposition of the operator. For all these things work together toward the perfection of the operation.

XXV. Besides those things which have been said, it must be noted that all things are to be examined according to a certain number and measure of times, places, and things to be treated. For time presides over temporal things and contains them, just as lower things are contained by the superior bodies. On this account the ancients thought that time exists in the first heaven.

Therefore it must be noted generally that Jovian effects are to be attempted under Jupiter, Saturnine under Saturn, Martial under Mars, and these when well disposed and happily situated in the heavens. Without the observation of these, no other preparations, no voices, no cults can avail anything. For it would be as if someone were to sow seed out of its proper season, not noticing that different seeds require different times, which is true in one thing as it is in all things.

For do we not also see certain religions and cults appointing different and diverse rites for certain and diverse times? For the diversity of times is manifold. Each of the planets has its own ages, its own years, its own seasons, its lunations, days and hours, so that for things that are perpetual and of long duration, the dominions of the great revolutions are to be observed; for things not so long-lasting, the dominions of the lesser; for things less illustrious, the dominions of the revolutions of days; and for common things pertaining to particular persons, the dominions of hours, which can occur three times in a natural day.

Of these things we must now have regard, because effects which pertain to changes of laws, principalities, and those things which come from general causes, would be attempted by us rashly and in vain.

On the dominion of the hours. It must therefore be noted that every day, however long or short, just as every night however long or short, is divided into twelve equal parts, which are called the twelve hours. These are called unequal hours because according to the increase and decrease of days and nights they become greater and lesser, and are not like the equal hours of clocks, which are scarcely twelve once a year. But omitting the equal hours, the unequal ones are to be observed by us, each of which contains fifteen degrees of the signs, so that the six signs which in any day pass over the horizon contain twelve planetary hours, of which the first is taken from the rising sun until the twelfth part of that day is completed, which belongs to that planet which gives its name to that day. To this succeeds another planet according to the order of the spheres. For to Venus succeeds Mercury, to Mercury the Moon, to the Moon Saturn, to Saturn Jupiter, to Jupiter Mars, to Mars the Sun, to the Sun Venus, and so on.

XXVI. In the application of active and passive things, the properties and natures of the elements must first be considered, both as pure and as compound, as more or less corruptible, as those which in all things make all things, as those which are purified by art and reduced to simplicity, as those which are compounded for the making of diverse species, as those which when pure can most excellently act upon the impure, and when compounded in however many degrees can accomplish innumerable things. For by certain orders certain species are produced, and through these all bindings, solutions, transmutations, predictions, conciliations of good things and exterminations of evil things. The knowledge and sagacity concerning these things is the foundation of all magic.

On the power of fire, and likewise of earth, water and air. Fire is the most active of all things and penetrates all things. The genera of compound things are to be considered according to how they are distributed into four suppositions. It must be considered in a certain order that these elements are referred to the heavens, just as the heavens to God. The virtues which depend upon the nearest elements are to be considered. The virtues which can scarcely be referred to any of the elements are to be considered, such as driving away poison, attracting iron, evacuating choler, and those virtues which with the least matter can do very much. Nor is it our intention to consider whence and how those occult virtues are infused, for we do not approve what many fabulate concerning the rays of the stars, concerning ideas, and concerning the reasons of the soul of the world. It suffices to know how diverse species and diverse individuals of the same species receive diverse influxes through diverse preparations and dispositions.

These are the things which contain the entire reason of magic, which alone suffice for a prudent and sensible man. Nor was it pleasing to bring forward examples and other particulars in which others occupy themselves, since those things can serve no purpose to one who does not have the reason of these matters and are attempted in vain. Moreover, to one who understands these things and deeply considers them, not only such things and the same things, but also similar, greater, and the greatest things are accessible. If therefore anyone thinks that we have not brought forward a complete art, and that we have not gathered all things from the studies of others toward the completion of the science, having omitted only superfluous things, let him know that this is a defect of his own judgment and weakness of mind, because he was made less fit by heaven for perceiving these and other things. But if some seem to have inscribed larger books, this is because they have mixed in many extraneous things and things less relevant to the matter, perhaps in order to make the art less accessible, which we could have done.

FINIS

Afterword

Giordano Bruno was not merely a philosopher or a mage. He was a true technomancer — centuries before the word existed.

Where others saw magic as ritual or superstition, Bruno saw a programmable universe governed by symbols, timing, and precise correspondences. He treated reality like code: something that could be mapped, interfaced with, and rewritten. His memory systems were compression algorithms. His sigils and characters were executable scripts. His entire magical philosophy was an attempt to hack the operating system of existence itself.

In *De Magia Mathematica*, he is reverse-engineering that system — pulling the most powerful techniques from Trithemius, Agrippa, and others, then organizing them into a working framework. He understood that to command reality, you must first understand its architecture.

Bruno did not just write about magic. He tried to **hack God** — and in doing so, he challenged the Catholic Church’s exclusive claim to divine authority.

That is what got him burned alive in 1600.

That is also what makes him, for his time, the original technomancer.

1590 was still very much the Renaissance, right before the Scientific Revolution really took off.

Technology at that time was mostly: - Hand-powered tools and water wheels - Printing press was still fairly new (only about 140 years old) - No electricity, no engines, no machines beyond simple gears and levers - Clocks were still mostly mechanical and very rare - The telescope hadn’t even been invented yet (that came in 1608)

So when Bruno was writing about hacking the operating system of reality in 1590, he was doing it with **zero** modern technology — no computers, no electronics, nothing even close. He was basically trying to build a magical programming language using nothing but pen, paper, symbols, and pure thought.

That’s why calling him a technomancer for his time is actually pretty accurate. He was thinking like a hacker in an era when “technology” meant a really good quill.

Bruno saw the entire cosmos as a giant symbolic machine. Every thing in existence — stars, planets, plants, metals, colors, sounds, numbers — was a kind of code or correspondence. These were not random. They were linked in precise, structured ways, like variables and functions in a program.

In his mind, God was the original programmer. The cosmos was the operating system. The correspondences were the API. Magic was the act of executing code within that system.

He wasn’t begging God for favors. He was trying to interface with the system God built.